Alternatives: 2 Treatment: Clearcut; Broadcast burn

Compartment: 337 District: Cadillac-Manistee

Stand: 36 Location: T20N, R16W, Sec 13; Mason County

Acreage Treated: 29 ELTP: 10

Unit Description: A jack pine stand with a year of origin of 1926 and a basal area (BA) of 80. It is located on LTA

1 in Management Area 4.2.

**Resource Prescription:** Retain 10-20 oaks/acre >9" dbh. Site prep for natural regeneration all jack pine and oak <5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more that 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat. **Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags ≥6 inches dbh would not be cut and/or removed unless considered a safety hazard. **Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.



**Alternatives:** 3, 4 **Treatment:** Barren restoration; Broadcast burn

Compartment: 337 District: Cadillac-Manistee

Stand: 36 Location: T20N, R16W, Sec 13; Mason County

Acreage Treated: 29 ELTP: 10/12

Unit Description: A jack pine stand with a year of origin of 1926 and a basal area (BA) of 80. It is located on LTA

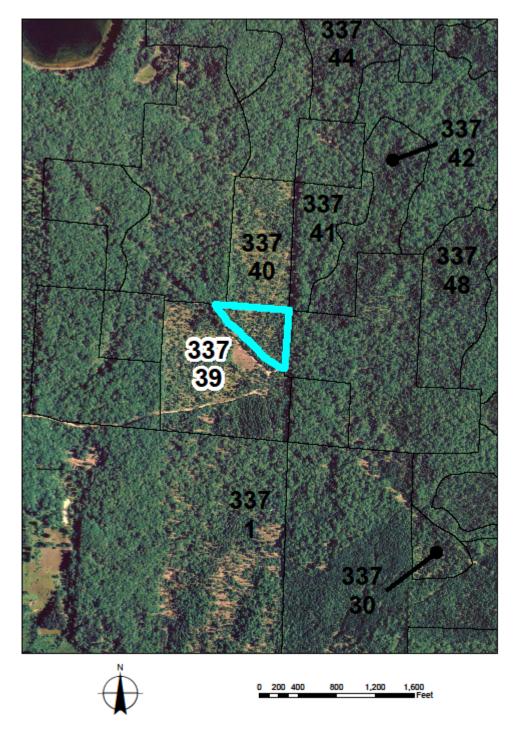
1 in Management Area 4.2.

**Resource Prescription:** Thin to 20-30 BA; retain all oak with a dbh >8"; reduce conifer activity fuel by 95%; allow tree length skidding and complete topwood utilization. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.

**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more that 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.



**Alternatives:** 2, 3, 4 **Treatment:** Barren restoration; Broadcast burn

Compartment: 337 District: Cadillac-Manistee

Stand: 39 Location: T20N, R16W, Sec 11; Mason County

Acreage Treated: 6 ELTP: 10

Unit Description: A jack pine-oak stand with a year of origin of 1988 and a basal area (BA) of 30. It is located on

LTA 1 in Management Area 4.2.

**Resource Prescription:** Thin to 10 -20 BA; retain all oak with a dbh >8"; remove all scotch pine; reduce conifer activity fuel by 95%. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.

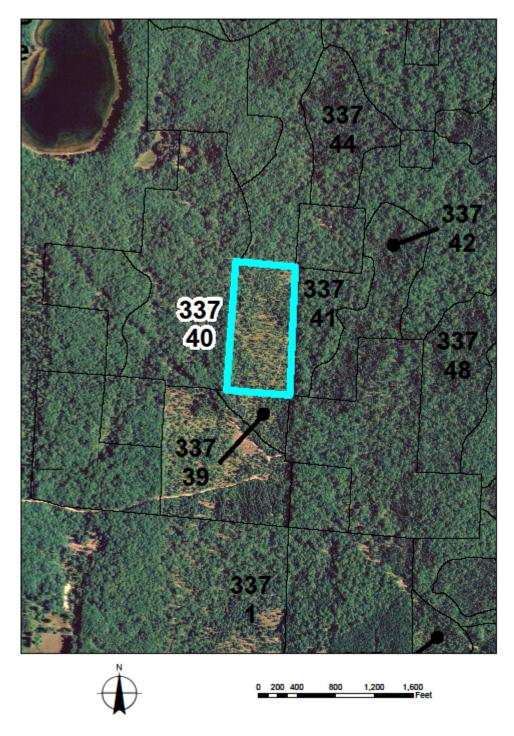
**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more that 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat. **Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags ≥6 inches dbh would not be cut and/or removed unless considered a safety hazard. **Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.



**Alternatives:** 2, 3 **Treatment:** Barren restoration; Broadcast burn

Compartment: 337 District: Cadillac-Manistee

Stand: 40 Location: T20N, R16W, Sec 11; Mason County

Acreage Treated: 19 ELTP: 10

Unit Description: A jack pine-oak stand with a year of origin of 1995 and a basal area (BA) of 30. It is located on

LTA 1 in Management Area 4.2.

**Resource Prescription:** Thin to 10-20 BA; retain all oak with a dbh >8"; reduce conifer activity fuel by 95%. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.

**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more that 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

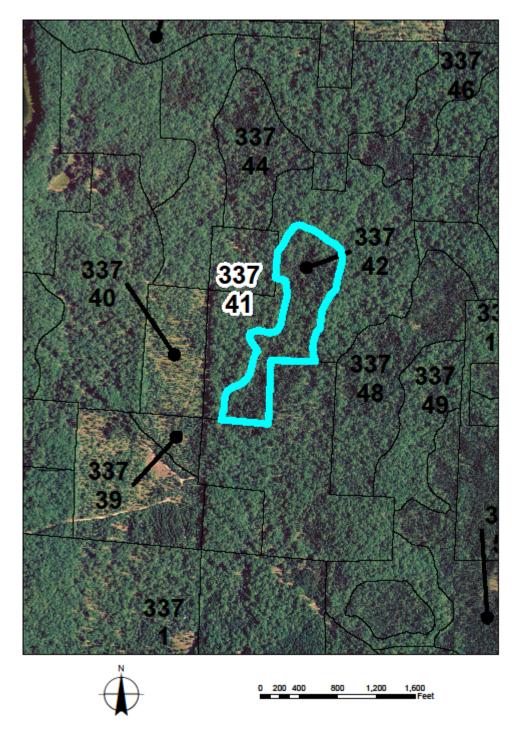
A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Wildlife Prescription:** Create upland water source. The waterhole would be excavated and lined with plastic, would be approximately 30X30 ft and 4-6 ft deep.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat. **Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags ≥6 inches dbh would not be cut and/or removed unless considered a safety hazard. **Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.



**Alternatives:** 2, 3 **Treatment:** Corridor for timber removal

Compartment: 337 District: Cadillac-Manistee

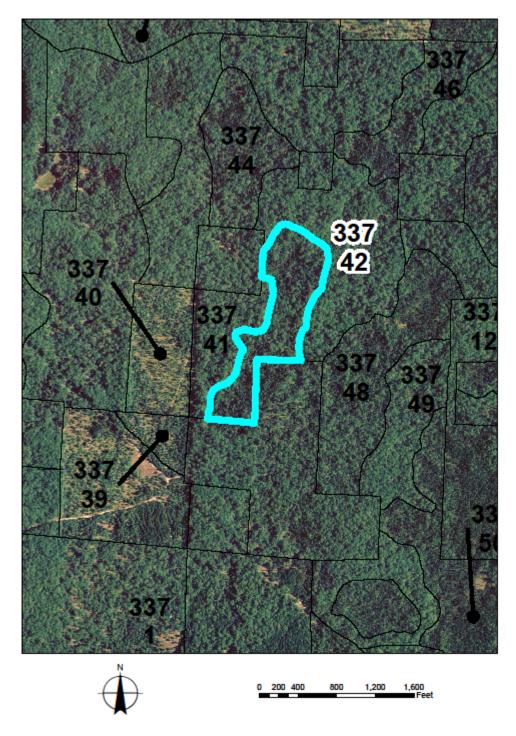
Stand: 41 Location: T20N, R16W, Sec 11; Mason County

Acreage Treated: 5 ELTP: 10

Unit Description: A black oak stand with a year of origin of 1905 and a basal area (BA) of 60. It is located on LTA

1 in Management Area 4.2.

**Resource Prescription:** Remove all stems within a 15' wide corridor to provide access from Trufant Road to harvest activities in adjacent Stand 42.



Alternatives: 2 Treatment: Clearcut; Site prep
Compartment: 337 District: Cadillac-Manistee

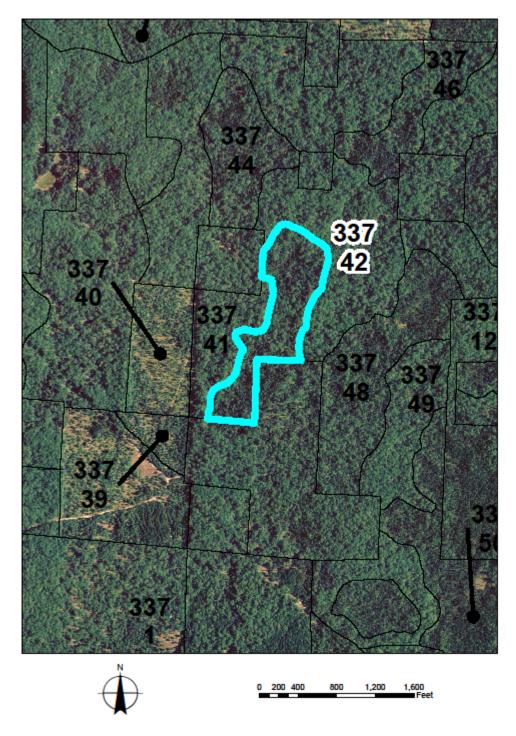
Stand: 42 Location: T20N, R16W, Sec 11; Mason County

Acreage Treated: 22 ELTP: 10

Unit Description: A jack pine stand with a year of origin of 1930 and a basal area (BA) of 60. It is located on LTA

2 in Management Area 4.2.

**Resource Prescription:** Retain 10-20 oaks/acre >9" dbh. Site prep for natural regeneration all jack pine and oak <5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.



**Alternatives:** 3 **Treatment:** Barren restoration; Broadcast burn

Compartment: 337 District: Cadillac-Manistee

Stand: 42 Location: T20N, R16W, Sec 11; Mason County

Acreage Treated: 22 ELTP: 10

Unit Description: A jack pine stand with a year of origin of 1930 and a basal area (BA) of 60. It is located on LTA

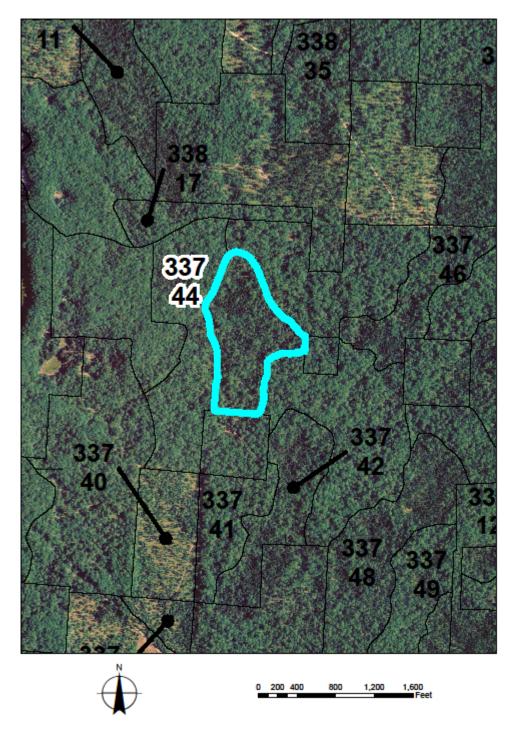
2 in Management Area 4.2.

**Resource Prescription:** Thin to 10-20 BA; retain all oak with a dbh >8"; reduce conifer activity fuel by 95%. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.

**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more that 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.



**Alternatives:** 2 **Treatment:** Barren restoration; Broadcast burn

Compartment: 337 District: Cadillac-Manistee

Stand: 44 Location: T20N, R16W, Sec 11; Mason County

Acreage Treated: 22 ELTP: 10

Unit Description: A jack pine-oak stand with a year of origin of 1930 and a basal area (BA) of 90. It is located on

LTA 1 in Management Area 4.2.

**Resource Prescription:** Thin to 20-40 BA; retain all oak with a dbh >10"; reduce conifer activity fuel by 95%; allow tree length skidding and complete topwood utilization. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.

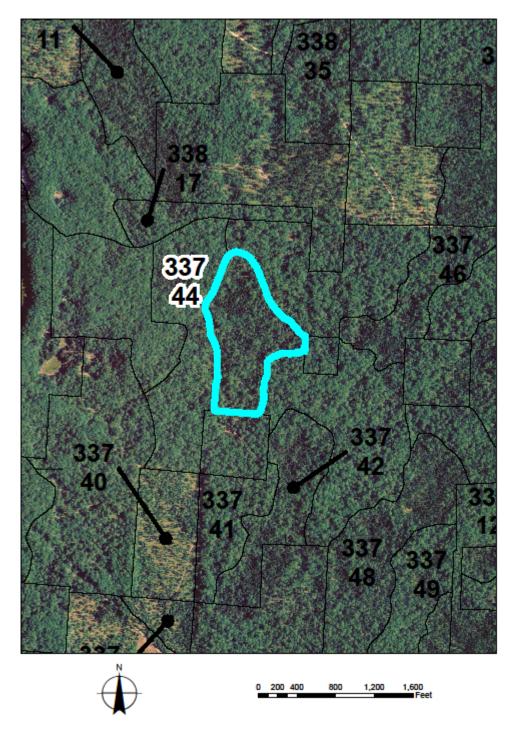
**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more that 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat. **Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags ≥6 inches dbh would not be cut and/or removed unless considered a safety hazard. **Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.



**Alternatives:** 3 **Treatment:** Shelterwood; Site prep

Compartment: 337 District: Cadillac-Manistee

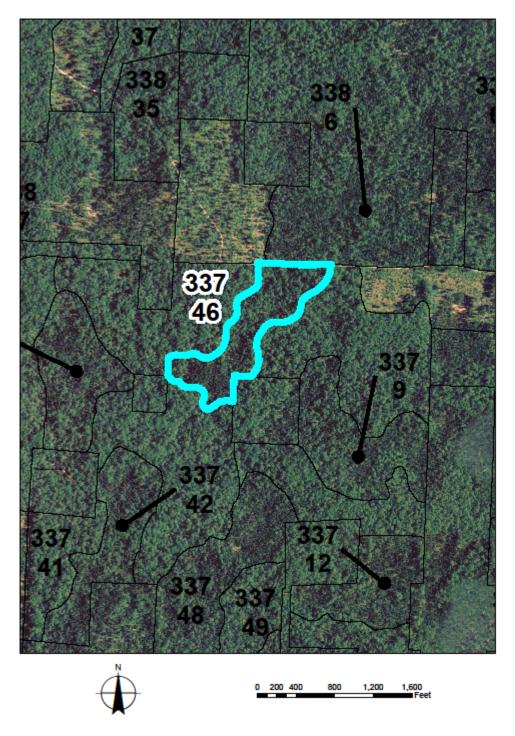
Stand: 44 Location: T20N, R16W, Sec 11; Mason County

Acreage Treated: 22 ELTP: 10

Unit Description: A jack pine-oak stand with a year of origin of 1930 and a basal area (BA) of 90. It is located on

LTA 1 in Management Area 4.2.

**Resource Prescription:** Shelterwood removal cut harvest; remove decadent/high risk jack pine and oak <8" dbh. Site prep for natural regeneration by hand tool felling of all jack pine and oak <5" dbh. Retain a minimum of 30 BA of oak and pine >8" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.



**Alternatives:** 2 **Treatment:** Sanitation; Pile and burn

Compartment: 337 District: Cadillac-Manistee

Stand: 46 Location: T20N, R16W, Sec 12; Mason County

Acreage Treated: 20 ELTP: 10

Unit Description: A jack pine-oak stand with a year of origin of 1905 and a basal area (BA) of 60. It is located on

LTA 1 in Management Area 4.2.

**Resource Prescription:** Remove decadent/high risk jack pine; retain a minimum of 40 BA of trees >5" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

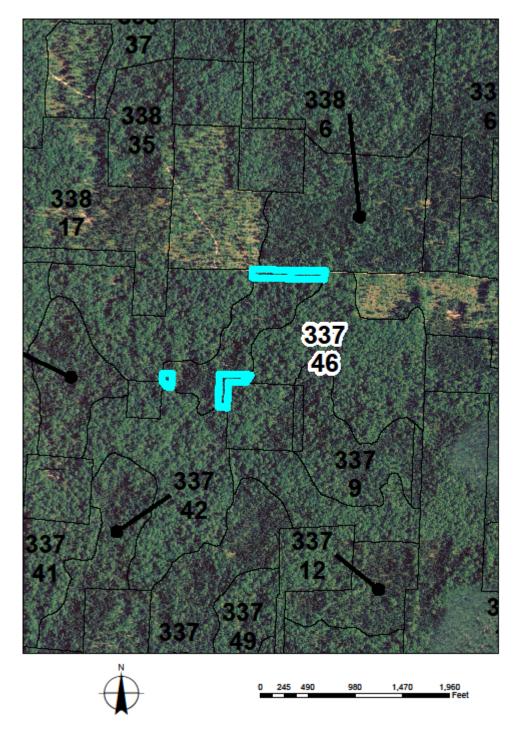
**Fuels Prescription:** Machine pile material resulting from sanitation cut throughout the stand. Piles can vary in size and where possible should not be placed under overstory trees.

Burn the piles created during machine piling. This would take place when long range weather forecasts would insure that fire does not spread from the piles to adjacent land, usually late fall and winter.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat. **Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

Mitigation: Standing snags ≥6 inches dbh would not be cut and/or removed unless considered a safety hazard. Mitigation: Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.



**Alternatives:** 3, 4 **Treatment:** Fuelbreak; Pile and burn

Compartment: 337 District: Cadillac-Manistee

Stand: 46 Location: T20N, R16W, Sec 12; Mason County

Acreage Treated: 3 ELTP: 10

Unit Description: A jack pine-oak stand with a year of origin of 1905 and a basal area (BA) of 60. It is located on

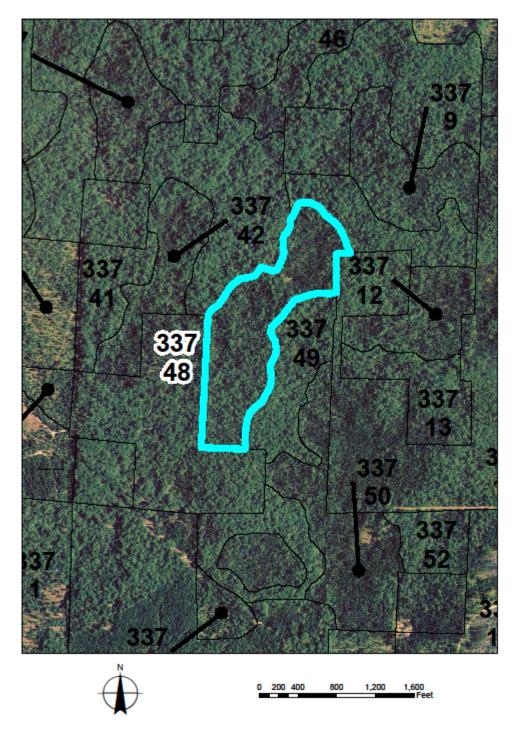
LTA 1 in Management Area 4.2.

**Fuels Prescription:** Cut all decadent hardwoods and all conifers within 100' of private property, road. Break up all fuel concentrations that appear to pose a threat. These fuels would then be piled within the fuelbreak corridor. Piles can vary in size and should not be placed under overstory trees. All healthy hardwood overstory trees and hardwood regeneration would be retained. Burn the piles created during fuelbreak construction. This would take place when long range weather forecasts, usually late fall or winter, insure that fire does not spread from the piles to adjacent land. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat. **Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags ≥6 inches dbh would not be cut and/or removed unless considered a safety hazard. **Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.



**Alternatives:** 2 **Treatment:** Barren restoration; Broadcast burn

Compartment: 337 District: Cadillac-Manistee

Stand: 48 Location: T20N, R16W, Sec 12; Mason County

Acreage Treated: 37 ELTP: 10

Unit Description: A jack pine-oak stand with a year of origin of 1905 and a basal area (BA) of 70. It is located on

LTA 1 in Management Area 4.2.

**Resource Prescription:** Thin to 20-30 BA; retain all oak with a dbh >8"; reduce conifer activity fuel by 95%; allow tree length skidding and complete topwood utilization. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.

This stand would be moved from a land suitability classification (LSC) 500 to an LSC 600, removing the stand from the Forests' timber base.

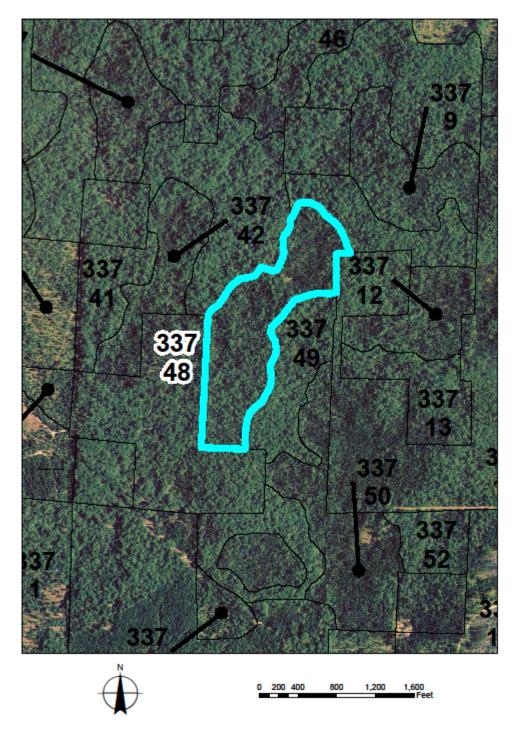
**Fuels Prescription:** A broadcast burn would be conducted. The prescribed burn would take place after a burn plan is written and approved for the units to be treated. Details of desired weather conditions, firefighting forces required, safety concerns, and other critical issues would be detailed in the burn plan. The objectives are to reduce fuel loading, reduce ladder fuels and to maintain a more open condition to reduce the possibility of catastrophic wildfire. The prescribed burn should reduce 1 hour fuels 75% (10-90%), 10 hour fuels 50% (5-80% range), 100 hour fuels 35% (10-70% range), and 1000 hour fuels 10% (0-40% range). Exposed mineral soil would occur on no more that 15% of the stand. Over all tree mortality in the residual stand should not exceed 15%. Manage smoke to minimize impacts to smoke sensitive areas.

A series of maintenance burns may be required to reduce additional fuel buildup; encourage continued growth and sustain plant species dependent on fire; and, discourage regeneration of tree species associated with extreme fire behavior. It is anticipated that up to two additional burns spaced every 3-5 years may be required to achieve these goals.

**Concern:** Protection of potential Indiana bats present during the breeding season and potential roosting habitat. **Mitigation:** Prescribed burning would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts. Prescribed burns would be conducted only when smoke would be transported away from the Tippy Management Zone (TMZ) or when the majority of the smoke would disperse before reaching the TMZ to protect bats during spring and fall swarming.

**Mitigation:** Standing snags ≥6 inches dbh would not be cut and/or removed unless considered a safety hazard. **Mitigation:** Cutting would be prohibited from May 1-August 31 to eliminate the possibility of impacting individual bats in summer roosts.

**Concern:** Protection of bald eagle nesting areas.



Compartment: 337 District: Cadillac-Manistee

Stand: 48 Location: T20N, R16W, Sec 12; Mason County

Acreage Treated: 37 ELTP: 10

Unit Description: A jack pine-oak stand with a year of origin of 1905 and a basal area (BA) of 70. It is located on

LTA 1 in Management Area 4.2.

**Resource Prescription:** Shelterwood removal cut harvest; remove decadent/high risk jack pine and oak <8" dbh. Site prep for natural regeneration by hand tool felling of all jack pine and oak <5" dbh. Retain a minimum of 30 BA of oak and pine >8" dbh. Retain or create an average of 9 suitable roost trees per acre within the treated area based upon the priorities in the Indiana Bat Management Guidelines (Forest Plan Standards and Guidelines, pages II 23-25). Retain native, mast producing shrubs where possible.